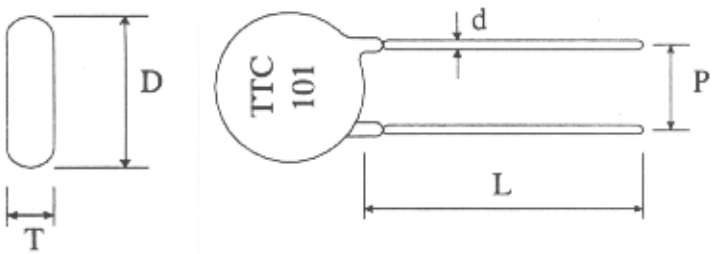
142033

Specification of NTC Thermistor for Temperature Compensation

PART NO . TTC-101

CUSTOMER P/N . _____

1. Dimensions



Disc ϕ	Dmax.	Lmin.	d	p	Tmax.
5	6.5	31	0.5±0.02	3.5±0.5	5

(Unit : mm)

1-1 Material of coating : EPOXY

1-2 Material of Leads : Tinned Copper Wires

1-3 Color of coating : Green

2. Electrial characteristics

	Parameter	Symbol	Test Conditions	Min.	Nor.	Max.	Unit.
a.	Resistance At 25℃	R_{25}	Ta=25℃ ±0.1℃ I<0.5mA	90	100	110	OHM
b.	Resistance At 50℃	R_{50}	Ta=50℃ ±0.1℃ I<0.5mA	-----	43.59	-----	OHM
c.	R_{25} / R_{50}	K	----------	-----	2.293	-----	-----
d.	B Constant	B	(8876 Log K)	2976	3200	3424	K
e.	Thermal Dissipation Constant	C	Ta=25℃ ±0.1℃	-----	9	-----	mW/℃
f.	Thermal Time Constant	-------	Ta=25℃ ±0.1℃	-----	19	-----	Sec
g.	Insulation Test	-------	1000V DC 1 min	-----	500	-----	Mohm

3. Maximun Ratings

	Parameter	Specification	Unit
a.	Operation Temperature Range	-30 ----- +125	℃
b.	Max' Permissible Current	170	mA
c.	Max' Operating Current	15	mA

4. Mechanical Characteristics

4-1 Leads Terminal Tensile Strength

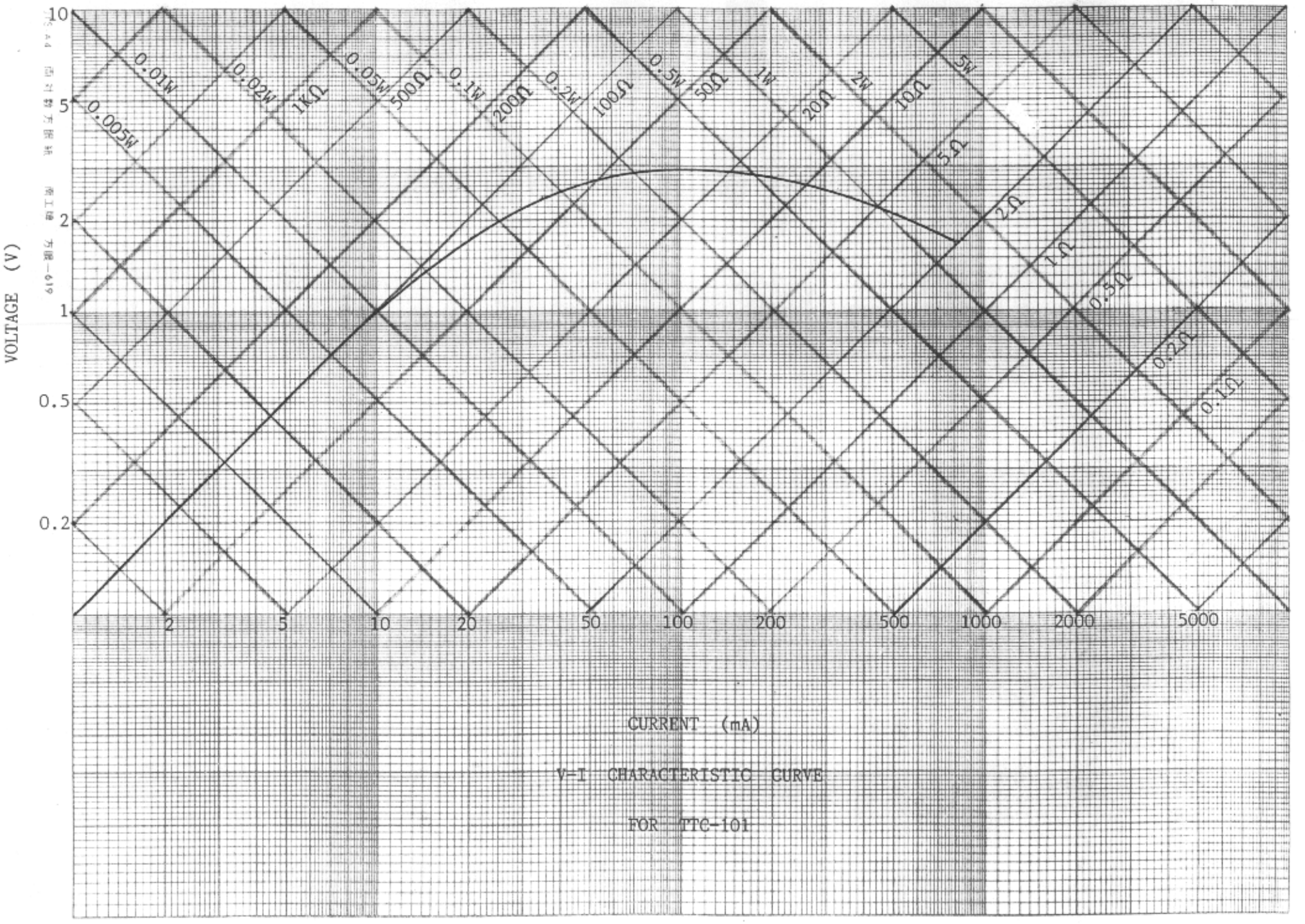
Conditions	Test Result	
Fasten body with a Load Applied to each lead 1 kg for 5 sec.	No break out and damage	OK

4-2 Leads Terminal Bend Strength

Conditions	Test Result	
Fixed body and hang 0.3 kg on one terminal bend 90° then back , again in opposite .	No break out and damage	OK

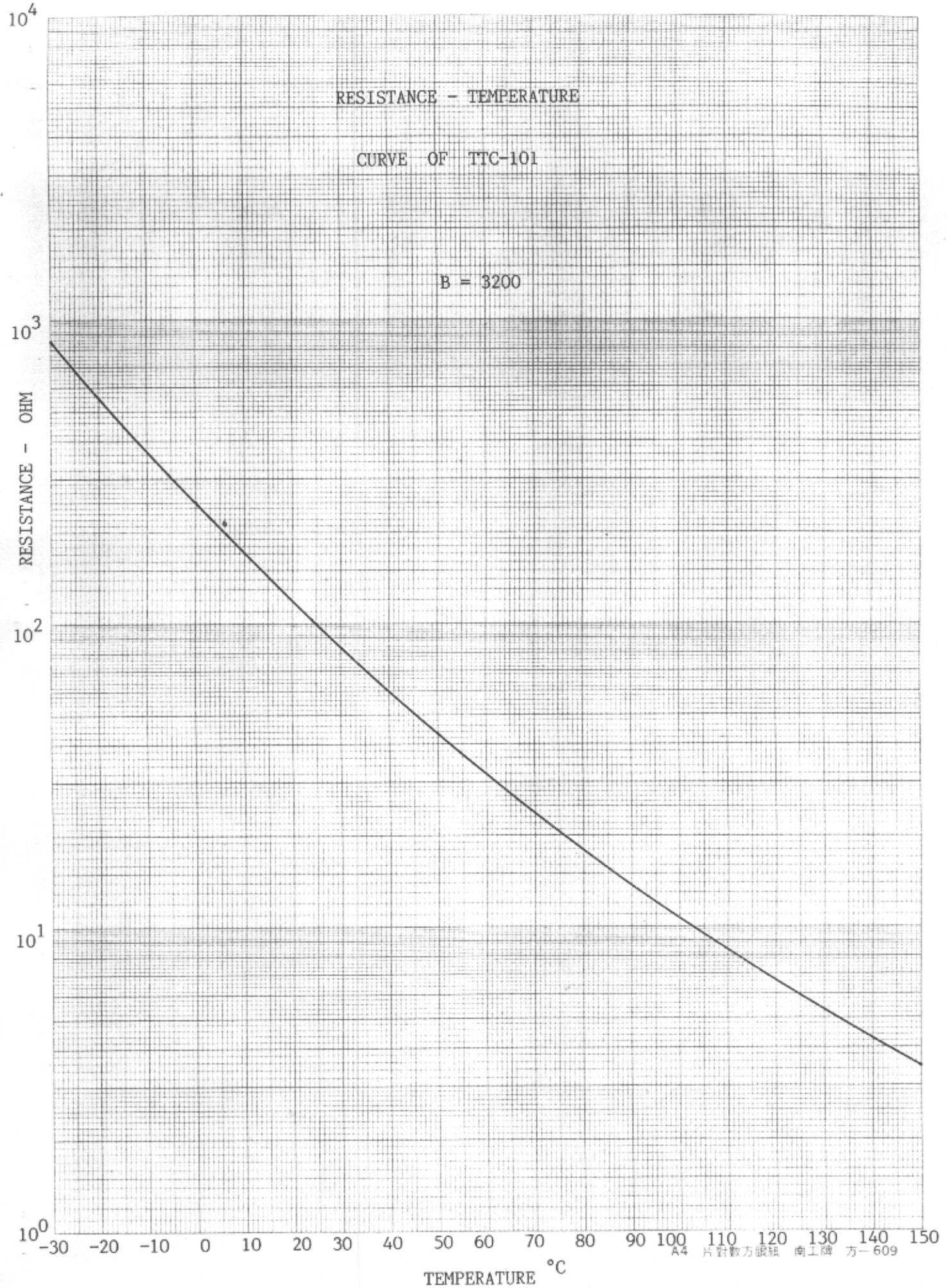
5. Reliability Test

Item	Test Conditions	Variable
Temp. cycle test	-40 ℃ X 30 → +25 ℃ X 5 +160 ℃ X 30 → +25 ℃ X 5 } X 10	Within ± 10 %
Humidity test	45 ℃ 95 % RH X 1000 HR	Within ± 10 %
Life test	170 mAmp. X 1000HR	Within ± 10 %
Insulation test	DC 1000 V	ABOVE : 500 MOHM



V-I CHARACTERISTIC CURVE

FOR PTC-101


RESISTANCE - TEMPERATURE
CURVE OF TTC-101
B = 3200
RESISTANCE - OHM
10^4
10^3
10^2
10^1
10^0
-30 -20 -10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150
TEMPERATURE °C
A4 片對數方眼紙 南工牌 方一609